

The Changing Nature of Warfare Through 2020

Extension of the Report of a Conference
at the CNA Corporation, 25-26 May 2004
of 21 September 2004

H. H. Gaffney

*Incorporating comments by Michael McDevitt,
Eugene Cobble, Ken Gause, William O'Neil, and
Dmitry Gorenburg*

**Center for
Strategic
Studies**



The Center for Strategic Studies is a division of The CNA Corporation (CNAC). The Center combines, in one organizational entity, analyses of security policy, regional analyses, studies of political-military issues, and strategic and force assessment work. Such a center allows CNAC to join the global community of centers for strategic studies and share perspectives on major security issues that affect nations.

The Center for Strategic Studies is dedicated to providing expertise in work that considers a full range of plausible possibilities, anticipates a range of outcomes, and does not simply depend on straight-line predictions. Its work strives to go beyond conventional wisdom.

Another important goal of the Center is to stay ahead of today's headlines by looking at "the problems after next," and not simply focusing on analyses of current events. The objective is to provide analyses that are actionable, not merely commentary.

Although the Center's charter does not exclude any area of the world, Center analysts have clusters of proven expertise in the following areas:

- The full range of Asian security issues, especially those that relate to China
- Russian security issues, based on ten years of strategic dialogue with Russian institutes
- Maritime strategy
- Future national security environment and forces
- Strategic issues related to European littoral regions
- Missile defense
- Latin America
- Operations in the Persian (Arabian) Gulf
- Relations with the world's important navies
- Force protection.

The Center is under the direction of Rear Admiral Michael McDevitt, USN (Ret.), who is available at 703-824-2614 and on e-mail at mcdevitm@cna.org. The administrative assistant for the Director is Ms. Brenda Mitchell, at 703-824-2137.

Approved for distribution:

October 2004



H. H. Gaffney
Director, Strategy and Concepts
Center for Strategic Studies

This document represents the best opinion of CNA at the time of issue.
It does not necessarily represent the opinion of the Department of the Navy.

Distribution unlimited. Specific authority: N00014-00-D-0700.
For copies of this document call: CNA Document Control and Distribution Section at 703-824-2123.

Contents

Summary	1
The present situation	5
The Future	7
Nature of conflicts out toward 2020	7
Global and local terrorism	7
Internal conflicts	9
State-on-state conflicts.....	10
The special case of East Asia.....	12
How conflicts and warfare may be fought.....	15
How groups and countries may adjust their defense programs to the changing nature of warfare through 2020	23
The changing nature of warfare in strategic perspective, including some alternative horizontal scenarios	33
Today's global setting.....	33
Evolution of warfare toward 2020 in the global context.....	35
Path 1: More of the same	35
Path 2: Terrorism becomes rampant and the Islamic world goes up in flames	38
Path 3: A shift back to balance of power and security blocs	39
Conclusion	42

The Changing Nature of Warfare Through 2020: Extension of the Report of a Conference 25-26 May 2004

Summary

This report is about warfare and how it might change through 2020. It is also about the strategic context in which warfare may change and how in turn warfare might change that strategic context. By warfare, we mean people killing people for presumably political purposes (i.e., beyond family feuds or criminal activities that result in killing). We look at it out through 2020 in three dimensions: where killing may be taking place, how the killing may be done (with what instruments, tactics, and strategies), and how killing may be organized and prepared for (from the level of terrorists and insurgents up to the state level).

On behalf of the National Intelligence Council's Global Trends 2020 project, and under the direction of the National Intelligence Officer for Conventional Military Issues (Major General John Landry, USA (ret.)), The CNA Corporation conducted a conference on 25-26 May on "the Changing Nature of Warfare." We solicited 21 papers to be presented at the conference, under six different panels:

- I. Prospects for conflict around the world.
- II. Contemporary characteristics of war that may persist or be consigned to the dustbin of history.
- III. Emerging characteristics of war.
- IV. Impact of contemporary conflict on friends and allies strategic policies.
- V. What other countries might have learned from post-Cold War conflict.
- VI. What the U.S. has learned from contemporary conflict.
- We also discussed insurgencies in Latin America.

In this summary report, we will put the changing nature of warfare as discussed at the conference into strategic context and extend its implications toward the year 2020.

There is broad agreement that the global, transnational, terrorist threat would be the most persistent and pervasive threat for the years to come. It is a threat that is difficult to come to grips with.

- In its extreme manifestations, the terrorists could obtain and use weapons of mass destruction. They would attempt to disrupt the global economy and to drive the advanced nations out of the Islamic world.
- At the other end of the spectrum, it is a dispersed, incidental threat, capable of horrific incidents, but not about to destroy civilized life.

The underlying causes of the most pervasive and serious terrorist threats are in the Islamic world, which is threatened by encroaching globalization but suffers from deficient governance, corruption, growing populations, too great a reliance on oil exports in several cases, and an inability to create the modern economies that could provide jobs to their people, plus other factors arising from their social structures and histories. This is further complicated by a continuing American presence in the region reminiscent of the colonial era, and U.S. support for Israel. These trends could intensify, or they could be eased as the years pass. The United States' role in influencing these trends is not inconsiderable, especially in forging peace between the Israelis and Palestinians, for which it is indispensable. Whether it can affect political reform in these countries is much more problematic. In the interim, further terrorist attacks may be expected, as well as the possible failure of some Islamic states, with consequent insurgent wars within them.

In this new historical era, state-on-state conflicts have greatly diminished, along with the classic military establishments that have waged them (except for the interventions by the United States in Iraq and the preemptive strategy of the U.S.—and it remains to be seen what direction China takes). Except for the known confrontations among states—in Korea, China-Taiwan, India-Pakistan—and unless the advanced world feels it needs to invade a state that may be harboring terrorists, we do not expect to see more state-on-state conflicts—though the current situation is tense across the Caucasus region and we could always be surprised elsewhere.

If the dominant trend across the period between now and 2020 is the struggle of the advanced nations—the family of nations that continues to make global connections, assuming China is one of those—and the terrorists arising from the Islamic world, how then would the advanced nations handle this? We do not foresee them conquering and trying to govern the predominantly Muslim countries—the experience in Iraq may give them pause—but they may need to find new modes of cooperation among themselves in the struggle against terrorism. The traditional institutions, like NATO or the G-8, may not be appropriate forums for this purpose, in part because much broader international interagency cooperation is needed—among financial institutions, intelligence organizations, and police. Ad hoc

coalitions to respond to the incidents likely to occur may not be sufficient, given their lack of habits of cooperation and lack of interoperability.

While the attempt to control terrorists and terrorism and to alleviate the conditions that give rise to them may constitute the primary kind of warfare through 2020, there is also the possibility that more classic balance-of-power confrontations, complicated by the proliferation of nuclear weapons, may arise, especially in East Asia. Much depends in the near term on North Korea as a wild card, and then on China in the longer term. The question of China is whether its rise as an economic leviathan leads also to its becoming a military super-power and to its creating confrontations in the region, triggering reactive measures by other countries, notably Japan. It is hard to envisage the North Korean and Taiwan situations dragging on through 2020, but it is one possibility, given that they have already been going on for the last 50 years. Yet how they might be resolved in the interim is unknown. In any case, it is also hard to envisage the development in East Asia of the kind of stabilizing institutions and cooperation among those countries that seems to have put the wars of Europe behind them. Little progress in that respect has been made so far in East Asia. If there were an arms race involving China, Japan, and the United States in East Asia, it would provide a new impetus to the more exotic developments in the capabilities of warfare, including the use of space and precision weapons—and even possibly nuclear weapons. Whether it would lead to warfare itself is another question.

In 2004, the avowed strategy of the U.S. Government is to maintain a military capability beyond challenge from any state or combination of states. Whether the U.S. can maintain this superiority over the 16 years between today and 2020 remains to be seen. It is dependent on both internal and external factors. What is clear is that the United States will not be a spectator to all this, especially after 9/11. Much of the evolution of warfare—or its avoidance—from now to 2020 depends on the continued engagement of the U.S.

- New and catastrophic terrorist attacks in the U.S. could cause it to retreat to a dominant homeland defense.
- On the other hand, its further interventions in the Muslim countries in order to quell terrorism or proliferation, and in particular in the Middle East, would shape its capabilities for warfare in other ways.

In East Asia, the military toehold of the U.S.—much of it maritime—could appear tenuous. The tasks of actual warfare over Korea or Taiwan, should warfare break out, would be enormously challenging, despite American military superiority, given the distances involved and the battle environments. It also depends on how much the U.S. leadership relies on the military instrument versus how engaged it may be through diplomacy in the economic evolution of the region. The wild card

here could be the fragility of the U.S. economy and how it is managed as it continues to pile up both government debt and a negative current account balance while coping with an aging population. But then again, it may well be that China's own economy and its internal stability are significant wildcards.

What all this says is that warfare and the capabilities of countries (and transnational groups) for warfare depend on the larger strategic context of economics, including the fruitful employment of people.

The present situation

At the time of the conference on the changing nature of warfare, and in the discussions at the conference, the participants were preoccupied with the situation in Iraq and, to a lesser degree, the situation in Afghanistan. They saw the U.S. bogged down in Iraq: one said the U.S. invasion had been a master strategic stroke into the heartland of the problem of terror, while another said it was a huge blunder and that the U.S. should get out. They agreed that Iraq represented a recrudescence of insurgent warfare. They also agreed that terrorism was likely to be the dominant form of conflict or warfare for the indefinite future—though hardly warfare in some Clausewitzian sense of the word. They noted that forces from the advanced countries were also having to take on “stabilization” roles in countries that are in internal turmoil. This was a direction in which political leaderships in Europe were pointing for the future of their forces.

The near-term focus was thus on what is variously called the “arc of crisis,” “The Gap,” or “the seam of the world”—essentially the Islamic world as the breeding ground for the global terrorists. But it was a conference on warfare, not on reform of countries and their governance, nor on economic development. The participants did note that the Islamic world is not unified. There is a deep split in many Muslim countries between radicals and traditionalists, and many of the traditionalists are radical, but with no political processes, or very immature political processes (Turkey, Malaysia, and Indonesia are exceptions), the moderate middle doesn’t get a chance to express their view. When they do have their chance, they tend to reject religious parties in favor of secular leadership.

The participants accepted that the end of the Cold War, the independence of the former Soviet Bloc states, and globalization with its focus on economics had reduced the possibilities of state-on-state warfare, though they noticed that the U.S. had kept the art up with its attacks on Serbia, Afghanistan, and Iraq. They were warned twice during the conference that state-on-state warfare could raise its ugly head in East Asia in the future.

As a starting point, it was clear that the U.S. had gained much experience in developing its way of war and is unequalled in its classic military capabilities, that is, at least for major combat. European, Australian, and other advanced world military establishments are caught in the dilemma of wanting to keep up technologically with the Americans yet having to respond to stabilization tasks in failing countries, both in their neighborhoods and beyond, all in the face of constrained, stagnant, or declining defense budgets. India, too, aspires to technologically advanced forces for power

projection, at least in its neighborhood, but at the same time is tied down in ground force operations both in Kashmir and its Northeast, operations of long standing likely to continue for years to come. In the meantime, the forces that had relied on the classic platforms of tanks, artillery, and fighter aircraft, including Egypt, Syria, Iran, and even Russia, had not moved out into space and the more sophisticated developments in intelligence, surveillance, and reconnaissance (ISR) and thus were withering away with time and lack of warfare experience, especially since there were no more free Russian military goods.

The conference participants talked repeatedly about the fact that the U.S. dominates “the middle ground” in the spectrum of warfare (classic state-on-state) , the very kind of war that seems less likely in the future. Much more likely to many of them was warfare at either extreme of this spectrum—specifically, to **the left** (that is, to insurgency and terror) and to **the right** (to weapons of mass destruction (WMD)).

The participants did not dwell on the movement to the right, nor did they dwell on the prospects of terrorists getting their hands on WMD. The presentation on the role of nuclear weapons throughout the world through 2020 did not evoke any discussion. This suggests that in-depth awareness of the WMD issue, as a factor in thinking about the future of conflict, may be limited to those who are intensely involved in current proliferation issues, e.g., securing nuclear materials in Russia and diplomatically pressing North Korea and Iran from proceeding with nuclear weapons programs. Activity to ratify and enforce the Chemical Weapons Convention (CWC) is moribund at the moment.

In any case, those present at this conference on the changing nature of warfare were not immersed in the WMD issue. The focus at the conference was rather on conventional conflicts, insurgencies, terrorism, and the transformation of military forces to cope with these contemporary problems. As one participant at the conference said on another occasion, North Korea and Iran probably do not consider nuclear weapons as war-fighting instruments, but as deterrents—a subject that did not turn out to be within the scope of the discussions of conflict and warfare. There was also a view that chemical weapons are not likely to be effective against military formations taking defensive measures, though they could be devastating to undefended civilians. Nevertheless, the aspirations of the global terrorists to obtain WMD are well-known, and are taken into account by those who are pursuing and defending against them. Moreover, it was noted the United States has declared its intention of conducting a preemptive disarming attack on such weapons if they are discovered

The future

The nature of conflicts out toward 2020

Global and local terrorism

Global terror has a new life and no one is ready to predict it would wither away by 2020. Its specific origins lie in the efforts by the United States, Pakistan, and Saudi Arabia to promote Arab fighters going to Afghanistan to fight against the Soviet occupiers in the 1980s. These fighters were at loose ends after the Soviets withdrew. The charismatic efforts of Osama bin Laden to oppose Western influences in the Middle East gave them a new mission. But there are deeper sources of terrorism in the continued deterioration of the situations in the Islamic countries, heightened by the intrusion of globalization and its cultural attractions and threats. Unsettled Middle East peace contributes to the problem and poses its own range of evolution through 2020. The range of evolution from one extreme to the other of the global terrorism that emerged across the 1990s and culminated in the attacks in the U.S. on 9/11 out to 2020 would be from:

- Actually succeeding in establishing a new Caliphate (in its worst form, it would be in control of both Mecca and of Pakistan's nuclear weapons) and driving the West out of the Middle East; to
- Withering away as its recruitment of young people dries up and the original Arab fighters in Afghanistan grow old and even settle down.

No one denies that the terrorists must be picked off one-by-one if they can be found, forestalling attacks and disrupting organizations and their planning. But they also recognized that this is not likely to "win" the war on terrorism because it doesn't reform the breeding grounds of the terrorists and might have the opposite effect of stimulating more recruits. At the opposite end of the spectrum, no one thinks it would be easy for the Islamic radicals to reestablish the Caliphate: Islam has always been hard to unify and shows no signs of improving in that regard, given the looseness of the religion and the diversity of the countries. Moreover, the advanced nations are likely to interfere.

At the intermediate levels in the range of possibilities and at the lower end there, the greater chances for their continuing as terrorists lie in their current dispersal into essentially local cells, with only a few making their way from country to country with new plans and attacks. Toward the upper end of the spectrum, they could take over a country—the greatest worry is that they could take over

Pakistan, with its nuclear weapons. The least worry might be their taking over Somalia, given its lack of resources and chaotic warlordism. Moreover, terrorists taking over a country makes that country a target for Western attack, depending also in the long run on the continuing U.S. disposition to strike countries that are seen as harboring terrorists.

In the meantime, the years from now to 2020 are likely to be punctuated by additional horrendous incidents, carried out by the suicide bombings characteristic of this new wave of terrorism. These incidents are very sporadic and in scattered places now, and thus unpredictable:

- At the lower end of the spectrum, we can expect personal or car/truck bombs, large-scale hostage-taking (two cases in Russia in the last three years), or blowing an aircraft up and killing its passengers. These attacks seem to kill up to around 200-400 people. At the intermediate level, we fear a repeat of the World Trade Center air attack with its nearly 3,000 dead.
- At the higher end of the spectrum, the fear is their use of some kind of chemical, biological, or nuclear weapon, though the practicalities of the ever more dispersed terrorists acquiring such capabilities are not yet clear. The greater fear is that they will steal fissile material from Russia, buy a nuclear weapon from North Korea, or be given it by Iran or Pakistan. Delivery of such weapons is another matter, but all these possibilities are subject to international efforts at restriction or interception. Whether these international efforts can be sustained and effective through 2020 remains to be seen.

The international community and the United States in particular will continue to respond to the global terrorists:

- At the lower end of the range of actions, they will attempt to contain the terrorists and avoid attacks, especially through controls of air passengers and through extending inspections of ships and other cross-border traffic as the threat manifests itself and its severity increases. They will also attempt to track down terrorists, to break up cells, and to dry up their financing. This will take coordinated international efforts as are happening now. As terrorists strike more nations around the world, more are outraged. Whether this will result in greater cooperation or in attempts at appeasement of the terrorists remains to be seen.
- At the upper end of the range, they may attempt to promote reform in the predominantly Islamic states, in the hopes that this may discourage new

recruits from joining terrorist organizations—though “reform” as “democracy” could also lead to the dominance in politics and government of radical Islamists. This would take the cooperation of those states, who may nonetheless be resistant to Western intervention and which would have to show new resolve to reform—through changes of leadership, stimulation of economies to create jobs, and more equitable distribution of income (i.e., less corruption). Overt interventions to clean up a state harboring terrorists or otherwise supporting them, in the style of the U.S. invasion of Iraq, seem unlikely unless there were severe provocation or real evidence of nuclear weapons. The Iraq experience may well have tempered the ardor of those who advocate regime change through invasion.

- At the intermediate level, though, if the terrorists were to take over a state or otherwise set up a base in a compliant state, the U.S. is very likely to strike that base and to descend on it with ground forces, whatever administration is in office.

All of this would be a slow-grinding process, lasting years—no doubt through 2020. The main uncertainty lies in the evolution of the predominantly Muslim countries themselves.

Internal conflicts

Internal wars have been declining in number since reaching a peak around 1990-1991. The trend toward 2020 could be a continued decline, or the numbers could grow again. Internal wars may only be devastating to the particular country—humanitarian tragedies—or they might have broader strategic consequences, e.g., involving neighboring countries or disrupting crude oil production and export.

There is an overlap between failing states, or states with rigid or narrowly-based rule that could fail catastrophically, and the breeding grounds of terrorists. That is, predominantly Muslim countries can be part of these ranges of possibilities for failure, possibly to include Indonesia, Pakistan, Afghanistan, the Central Asian countries, Yemen, Lebanon, or Somalia. Historically, the attempt by the PLO (Palestinian Liberation Organization) to take over Jordan in 1970 is an instructive example of how difficult this can be—but also the turmoil it can cause in attempting it. Moreover, it may be easier for terrorists to suborn narrowly-based and rigid regimes, as they did with the Taliban. That means internal conflicts also can entail and stimulate the breeding grounds of the global terrorists or might pose opportunities for them to seize a country (though this has not happened as

yet—al Qaeda settled in Afghanistan not long after the Taliban had secured their rule).

The conference on the changing nature of warfare was not a conference on the background conditions of “countries left behind in the course of increased globalization around the world,” nor on the triggers to civil war, anarchy, guerrilla warfare, etc., that may occur in poor countries. This discussion of internal war in this section focuses mostly on the poor countries, while noting that the IRA in Northern Ireland, the ETA Basques in Spain, and other persistent local rebel groups may persist even in more advanced countries. What we were looking at was warfare in the countries left behind (sometimes referred to as “the Third World”) where the very continuation of the state may be in jeopardy—people killing people, from the use of machetes in Rwanda up through the clashes of organized and uniformed units with small arms. The dominant characterization of all this at the conference was “insurgency,” though that implies armed groups struggling against an existing government, whereas it might be one ethnic group against another, or warlords against one another (as in Somalia), or sheer anarchy.

What would the international community—the family of nations, or the core members of the globalized world—do about internal conflicts? They have shown reluctance to intervene (e.g., in Rwanda, or so far in Darfur in Sudan), and when they do, it may not be in timely fashion, that is, not before much slaughter may have taken place. It also depends on what else may be preoccupying the leading countries that may restrain the community from taking action and whether they might be at loggerheads on other issues so that it might be difficult to arrange cooperation. The range of such dispositions to intervene would be:

- From a concerted and institutionalized effort to cover just about any situation (in the early 1990s, there was even talk of actually constituting the UN Security Council’s Military Committee provided for in the UN Charter, but the interest faded quickly);
- To haphazard reactions, assuming not much else going on, including letting a former metropole take the initiative (as the UK did in Sierra Leone and France in Côte d’Ivoire).

State-on-state conflicts

The U.S. interventions in Afghanistan in 2001 and Iraq in 2003 were state-on-state. The U.S. has a policy of preemption that might result in it attacking another state that was harboring terrorists or had threatening nuclear weapons. Whether

this American policy persists out to 2020 depends on whether the policy is administration-unique or considered to be at the heart of U.S. inclinations (both parties have allowed for the possible necessity of preemption), the evolution of the global war on terror, and the suppression of nuclear weapons proliferation. U.S. attacks would be cases of a highly-sophisticated force vs. a rag-tag force—though rag-tag forces may continue to fight on as insurgents.

The conference found other state-on-state conflicts a dying breed, with some exceptions as discussed below. The last classic case of state-on-state with organized armies seems to have been Ethiopia-Eritrea, a classic border-dispute case that was stopped through international mediation in 1990, but could flare again. Iraq attacked Iran in 1980 and attacked Kuwait in 1990, but was contained in 2000.

The general disappearance of such conflicts is attributed to the combination over the years of the stifling effect the bipolar Cold War had on such events, the rise of globalization and the interconnectedness of economies, and the end of European wars. In some ways the American and NATO air attacks on Serbian forces and Serbia itself in connection with the conflicts in Bosnia and Kosovo were considered the final wars of Europe.

There has not been an Arab-Israeli war since 1973, and by 1979 it was evident that Israel could handle any combination of attacking Arab states. This has not changed. Israel did attack into Lebanon in 1982 and skirmished with the Syrians at that time. Now, the Israeli-Palestinian conflict is closer to internal war than state-on-state. It is hard to envisage a new Arab-Israeli war, though in the coming years, at the current trend in affairs, we may well see an Iranian-Israeli exchange of threats to use nuclear weapons—with a slim possibility of an air and missile exchange that could escalate into a nuclear exchange.

There are other persistent state-on-state confrontations in East and South Asia that could result in war. These include North Korea vs. South Korea, China vs. Taiwan (with both of these very likely to involve the United States), and India vs. Pakistan over Kashmir. Would these situations still be with us come 2020, without resolution? It is possible—after all, each situation is over 50 years old. But war has remained a possibility in each case and material changes in the ways wars in each place could be fought may or may not make war more likely. These could be classic cases of armies vs. armies, but even today could have the added dimension of the use of nuclear or chemical weapons, delivered by ballistic missiles—a dimension that could expand toward 2020. However, the longer these situations go on without war despite a continuing accumulation of nuclear and

chemical weapons mounted on missiles, the more they may be described as situations of mutual deterrence.

The potential for some kind of state-on-state conflicts may be rising in the Caucasus: in 2004, one can envisage a clash between Georgia and Russia over Ossetia and Abkhazia, or Russian intrusions into the Pankisi Gorge between Georgia and Chechnya. It is even possible to imagine a clash between Russia and Ukraine. These conflicts, if they were to occur, would most likely begin as punitive raids rather than attempts at conquest. Moreover, in Central Asia, because of the odd boundaries of the Fergana Valley, Uzbekistan, Kyrgyzstan, and Tajikistan could end up at war—not to speak of continuing radical Muslim activity destabilizing the area. The division of the Caspian Sea into oil exploration areas was not fully resolved by 2004, and might result in some future clashes, though not some kind of full-scale war. Whether any or all of these Eurasian situations are resolved before 2020 is difficult to envisage at present.

It is hard to envisage other state-on-state conflicts, though something like the Rwandan Tutsi invasion of Zaire, resulting in the overthrow of Mobutu and the installation of the puppet Kabilas (father and son) could be the kind of situation that could appear again in Africa. These cases would involve rag-tag armies fighting other rag-tag armies in circumstances where the terms “state” and “government” apply only in a formalistic sense.

The special case of East Asia

The rise of China and its growing military capabilities presents a new and significant player on at least the East Asian strategic stage, with likely global implications, especially for the global economy. China’s capabilities permit it for the first time since 1950 to credibly threaten force as a way to end the 50-year-old stand-off with Taiwan. China’s growing strength also worries Japan. What this means is that classic balance of power calculations and arms races are possible in East Asia, especially since the region does not have the collective institutions for alliances and for keeping the peace that developed in Europe during the Cold War (e.g., NATO, CFE, OSCE, and potentially the EU, nor the strategic arms limitations treaties, including the ABM treaty, that engaged the U.S. and the Soviet Union). The more formal relations on security are those the United States has bilaterally with Japan, South Korea, the Philippines, Thailand, and Australia, and these are likely to persist as Chinese military strength grows—even if it is essentially directed at Taiwan.

ASEAN (Association of Southeast Asian Nations) and its ARF (Asian Regional Forum) security dialogue and APEC have maintained stability in Southeast Asia since Vietnam withdrew from Cambodia, but have not developed into a coordinated alliance like NATO. However, economic connections may well be more important in restraining war than they may have been in the past, given the diversity of production locations; that is, more than ever before, any production can find a substitute country. Yet the experience of growth and prosperity is new enough that the connections may be fragile. The experience of democracy and its restraints on elites and on corruption in several of these states is also new and fragile.

The strategic implications of the rise of China must still be assessed both by China and its neighbors. A strong, unified China that is not simply preoccupied with internal affairs is a new aspect in the region. Much depends on the patterns of communication, dialogue, cooperation in resolving confrontations and experience among the countries in the coming years.

We have already discussed the North Korea case, which could well drag on through 2020. It is China that is the linchpin. The range of possibilities for China going to war are:

- At the low, or peaceful end, Hu Jin Tao's "Peaceful Rising China" prevails, and China does not begin a war, even against Taiwan.
- At the high end of the spectrum, China attacks and invades Taiwan between now and 2020.

The war over Taiwan could be both enormously destructive and enormously disruptive, both locally and to the world system, especially if the U.S. upholds its promise to come to the defense of Taiwan in the face of an unprovoked attack.

Within the range of these evolutions, China's economy is rich and stable enough and its own technological capabilities mature enough that it can build a large, sophisticated military between now and 2020 that not only could conquer Taiwan, but also intimidate all its neighbors or conversely set off an arms race across the region. The more likely prospect, though, is that the huge Chinese economy will not reach its full potential because of accumulating and unresolved internal problems associated with poverty in central and western China, uneven development, corruption, and political turmoil. There is also the question of China's growing international economic connections, including its operating within WTO rules, that complicate decision-makers' classic military calculations. Countries exporting to China would not give up that market, nor would China be

in any position to give up the American market (even if it is already diversifying away from that market). There is a spectrum of political evolution that could also shape the prospects for war as a result of the potential confrontation among states:

- A richer more diversified China might also lead to a more diversified and dispersed leadership not solely reliant on the few party people at the top to make all the decisions, and even to provide for some orderly and regular opportunities for the rotation of leadership. This might complicate decision-making for going to war over Taiwan because the costs may make continuing delay and political compromises on both sides of the Strait more attractive.
- It is also not precluded that Chinese leadership could lead the way toward creating the security alliances and institutions that keep the peace—for which the key is transparency on both thinking (intentions) and capabilities of the forces. This is something that took a long time to achieve in Europe with the Soviet Union. It is possible that the current negotiations of the five countries with North Korea could serve as a prototype for such consultations.

The United States is not an innocent or helpless bystander in all this:

- On one hand, the U.S. maintains a military presence in littoral Asia that may evolve into a numerically smaller but equally capable force tailored to its military posture in the larger region. Nevertheless it retains formidable military power both in the region and even coming from a distance that China would have to take into account.
- The United States also has deep economic connections and is likely to remain a substantial market for all the countries in the region. It also has many cultural connections through immigration and the attractions of its universities. That is, U.S. influence is not to be measured solely by its military capabilities, however formidable they may be.

The more interesting development in East Asia through 2020 is not so much in the prospects of warfare, but in the continuing economic development and comfortable way of life for all the people in the region. In that case, the more interesting complication is the growth in energy demand in East Asia and the tensions that might accompany increased competition for energy resources.

How warfare and conflicts may be fought

In global and local terrorism

Out toward the year 2020, we have described the range of possibilities for terrorists earlier. They were:

- From the use of personal bombs, car/truck bombs, and airplanes as bombs (including blowing up airplanes, as seems to have happened in Russia in August 2004);
- To the use of weapons of mass destruction.

Throughout the range, the delivery system of choice continues to be the suicide bomber. So long as religious fervor and piety rationalize terrorist activity, “human weapons” will be a threat. This is likely to continue through 2020, unless there is a real disillusion among Muslims about the suicide option, or the detection of bombs becomes much easier.

At an intermediate level, actions by terrorists ranging from the kind of hostage taking that the Chechens have exercised in Russia to perhaps the carrying out of a coup in a vulnerable country, or finding a sympathetic regime like the Taliban.

The upper range—use of WMD—appears to be their aspiration, but would be difficult to fulfill. It was once realized in a very crude and small way by Aum Shinrikyo in Tokyo, and by whoever killed five people and caused the shutdown of postal facilities, Congressional office buildings, and one other building with “letter anthrax bombs” in the U.S. in 2001 after 9/11. “Dirty bombs” also lie in the category of crude devices, but are not described as causing “mass destruction.” In any case, governments of the advanced nations, as well as other governments such as that in Jordan, fear these possibilities, will continue to be watchful, and will continue to take steps to either intercept attacks or conduct efficient consequence management.

Whether between now and 2020 the terrorists can obtain weapons of mass destruction and actually use them remains to be seen. Some commentators make flat declarations that the terrorists will use them the moment they get their hands on them. But, as Aum Shinrikyo demonstrated, effectively employing WMD so as to achieve mass killing is not a simple matter. A vial of deadly toxin is not yet a weapon, nor is a hollow sphere of plutonium. The greatest fear is that terrorists might steal a nuclear weapon, place it in a shipping container, and blow it up in a major harbor like New York.

Combating terrorism between now and 2020 is probably an extension of the ways that are being pursued now, with the added advantages that new detection devices may provide:

- At the lowest end of the spectrum, and not exactly “warfare” or “war-fighting,” would be the simple deterrent and protective measures taken to prevent the terrorists’ movement around the world and the approach of terrorists to targets. However, simply walling off the advanced world from terrorists is impractical.
- Next up the spectrum would be the tracking down and seizure or killing of individual terrorists through police work. This may be done at the country level and as a matter of international cooperation, e.g., through INTERPOL. Algeria has been doing pretty well against the Salafist Group for Preaching and Combat (GSPC), rounding up several leaders (one is still in the hands of Chadian rebels at this writing).
- A step up from that lower end of the spectrum would be intelligence-cued raids by Special Forces (SOF), or the use of an armed uninhabited aerial vehicle (UAV—like Predator) as was done in Yemen.
- Beyond that would be campaigns by organized country forces against guerrillas and other remote lodgments of terrorists, as the U.S. continues to do in Afghanistan or the Pakistanis have begun to do on their side of the border, and the Government of the Philippines is doing in Mindanao. These campaigns tend to be prolonged affairs, and also take the long-term winning of “hearts and minds” of the locals (the tribal areas of Pakistan and Afghanistan are famous for tribal leaders paid off, but continuing to do what they want to do anyway; North Korea is a state that exemplifies this phenomenon).
- At the higher end of the range would be occupation and regime change in a country that was harboring terrorists, though it probably would involve guerrilla warfare for some prolonged period.

All these are possibilities, with none guaranteed to permanently resolve the problems and sources of terrorism. At the same time, the picture of terrorists’ warfare out towards 2020 is about the same as today, except for the potential (not necessarily the realization) use of weapons of mass destruction. Advances in technology have made it possible for terrorists to communicate with cellphones (though these may be intercepted and they may catch on to not leaving their calling lists stored on their cellphones when they abandon them), take advantage

of modern copying techniques to make fake passports, and move around the world easily by air. But they still end up using conventional explosives.

In waging their war against the terrorists, the advanced nations may make better use of sophisticated surveillance devices and finally coordinate data bases of suspects among many users, assuming they can get Muslim names and aliases straight. The cat and mouse game would thus get more intricate toward 2020, but not necessarily more revolutionary. It is a persistent pattern of warfare.

Ways of fighting in internal conflicts

The way internal conflicts may be fought may also not change much through 2020. Indeed, the tendencies may be more the reversion to savage brutality, notably with the ubiquitous machetes, as happened in Rwanda and Sierra Leone. We cannot necessarily expect technological “progress” in all manifestations of warfare. And, as Iraq has demonstrated, insurgents with small arms can bedevil an otherwise sophisticated force that attempts to quell them. Urban warfare techniques may well improve with practice, but the cat-and-mouse games between “improvised explosive devices” (IEDs) and their counters, as have appeared in Iraq, may continue to evolve new patterns.

These generalities are not meant to underestimate the differences and severities of the situations in Iraq and Afghanistan in 2004.

- In Iraq, the United States military is finally confronting the type of urban warfare it feared encountering as it rediscovered the rest of the world and internal conflicts after the Cold War, though Mogadishu in 1993 was a foreshadowing event. The Iraqi insurgents fight with AK-47s, RPGs, mortars, and IEDs. The U.S. responds with infantry snipers, tanks, and infantry fighting vehicles. The situation in Sunni Triangle cities resembles Grozny in Chechnya in 1994, except that the U.S. destroys as few buildings as possible, its infantry is better trained and disciplined than that of the Russians, and its tanks have not met the disasters that Russian tanks met in Grozny.
- In Afghanistan, the U.S. is fighting against “guerrillas pushed to the periphery,” difficult to find, with the defenders in mud fortresses straight out of *Beau Geste* and vulnerable to surprise attacks. The now usual car bombs—suicide and otherwise—strike in Kabul as well. This pattern is also not new. The Afghans got a lot of practice against the Soviets.

- In both cases, the United States and its allies have been in a race against growing chaos to install interim governments and to train and motivate local militaries to take over the job of fighting. One is reminded of Vietnam.

These patterns in Iraq and Afghanistan do not represent technological, organizational, or economic advances per se. Like terrorists and guerrillas throughout history, they effectively use the resources available to them from contemporary society. IN 2004, it is the ability of the terrorists to capitalize on contemporary civil advances in information and communications equipment and networks to coordinate their attacks and communicate their messages to very large audiences, especially in the Muslim world. Therefore, we can expect them to keep cropping up wherever any new situations of internal conflict may arise through 2020.

Ways of fighting in state-on-state conflicts

The “American Way of War” actually practiced since the end of the Cold War, with its culmination in “the major combat phase” of Operation Iraqi Freedom, is likely to persist at the core of U.S. capabilities through 2020. That way of war is a combination of highly coordinated joint forces in all dimensions—air, ground, sea, and space—delivering precision fires, with the additional benefits of controlling collateral damage and minimizing own casualties. There are two complications to this:

- One complication is that this highly efficient way of war only rarely gets applied in all its dimensions: Desert Storm in 1991 and Operation Iraqi Freedom in 2003 have been the only cases—12 years apart. On that basis, we might predict its application in one more instance through the year 2020. It was applied both times against Iraq, and that is not likely to be repeated. It is difficult to envisage where else the U.S. may apply such forces—perhaps North Korea, Syria, or Iran?
- The other complication is the difficulties of “winning the peace,” that is, occupying and pacifying a country after its organized military forces have been demolished. That takes ground forces as well as non-military assistance to economies and societies. It could take years, if not decades, for resolution—witness Bosnia, Kosovo, Iraq, and Afghanistan. The expectation following the Iraq case is that a highly successful, well-equipped modern force will have to struggle with a barely-organized

pervasive insurgency, equipped with primitive arms lethal at short ranges. U.S. forces, that is, ground forces, may find themselves more or less permanently in a constabulary role across the Middle East and South Asia.

At the other end of the spectrum for state-on-state warfare is the Ethiopia-Eritrea model, using traditional equipment, without sophisticated connections to space assets or much close air support, in grinding wars of attrition of the classic sort. This is what most militaries in the world are capable of, as will be discussed in the next section—on how militaries are likely to be organized and equipped for warfare out toward the year 2020.

In between these extremes of state-on-state conflict (and putting aside for a moment the question of the use of nuclear or chemical weapons), the question is whether those state-on-state wars that may occur would approach the sophistication of the American way of war. As will be discussed in the next section, the conventional capabilities of either the countries in the situations mentioned—North Korea-South Korea or India-Pakistan, or for Europeans or the other Middle Eastern countries—are not likely to advance much, given the trends in the economies of all these countries. A China-U.S. conflict over Taiwan would be an exception to this judgment. They may acquire for prestige purposes and be able to use some niche capabilities, e.g., Europeans buying Tomahawk cruise missiles from the United States, but these would not be decisive. There may be some prospects of conflicts between states in the Caucasus and between states in Central Asia, and Russia could get involved, but economics are even more of a restraint in these cases. Such conflicts are more likely to resemble Ethiopia-Eritrea. The question of advancing Russian capabilities will be covered in the next section, on how groups and countries might organize for defense between now and 2020.

The further question is whether nuclear and chemical weapons would be used in the years toward 2020. As noted earlier, two of the three known potential cases of state-on-state warfare—Korea and India-Pakistan, but not necessarily China-Taiwan—are thought to have that kind of escalation potential (China-Taiwan has another kind of escalation potential, to be discussed further below). At the same time, the fundamental unusability of such weapons for war-fighting purposes, as opposed to just killing lots of civilians, persists. As U.S. calculations showed, in the scenario of a Soviet attack on West Europe, it took something like 35-65 nuclear weapons to destroy a single division. The devastation of civilians that happened to be around would be great, to say nothing of the contamination of the area. It is generally thought that a state would resort to nuclear weapons if it thought its survival was immediately at stake, but this is hard to know, and

Saddam certainly did little when his survival was at stake (even aside from the fact that he apparently had no more weapons of mass destruction). Threatening and bluffing are another matter, but this goes beyond “warfare” as covered in this paper. The U.S. retains immense retaliatory capability.

The question of chemical weapons being used in the next 16 years also comes up. Chemical warfare capabilities exist in a number of countries. As one conference participant noted, a military force with protective gear is hardly likely to be stopped by a chemical attack, but such an attack could be devastating for civilians, e.g., in Seoul. Some protective measures are available for civilian populations, but they require extensive preparation and training of the population—measures that may give the defending government pause on political as well as economic grounds. Whether the conditions would arise for them to break the taboos against their use and whether they would be effective remains a matter of conjecture.

Fighting in state-on-state conflicts: the special case of Taiwan

Aside from the mystery of North Korea, the most likely case of state-on-state war in East Asia between now and 2020 would be China attacking Taiwan. One could also imagine Japan and China skirmishing over the Senkaku/Diayou Islands, but not attacking each other’s mainland over them. Without going into the specific scenarios, how the war would be fought depends to a large extent how far China’s capabilities may have advanced at the time at which they decide to attack.

- The earlier the invasion were to occur, the more traditional the way it would be fought, for China would not probably not have extensive connections in space, including over-the-horizon targeting far out into the Pacific. It might well have connected all its missiles aimed at Taiwan to GPS or GLONASS (the Russian equivalent) for greater accuracy and thus greater effect—though, say, 600 missiles is the equivalent of 600 U.S. Tomahawk cruise missiles, with which the U.S. itself would hardly expect to bring down a country or its regime. China has not yet demonstrated innovations in amphibious transport and lacks what U.S. experts would regard as anything like an adequate capability for an assault of this magnitude. If they were to attempt to build it in the coming years, it would be noticed.
- The key for Beijing is one of speed: can they “bombard” Taiwan into acquiescing to reunification before the U.S. could intervene? Would the government and people of Taiwan be willing to fight it out, or simple bow

to *force majeure* in the hopes of preserving their economy and comfortable life styles?

- It is also possible that, as in other cases (and as in Taiwan's in the past), the Taiwanese government may calculate or choose to believe that it really is not in Taiwan's interest to strengthen its defenses greatly—out of concern for weakening the U.S. commitment to its defense, a commitment whose value goes beyond the direct defense of the island.
- Taiwan is dependent on the U.S. coming to augment its own defenses. The earlier in the period, the more advanced U.S. capabilities would be over China's, especially in the air and from the sea. The Chinese diesel submarine force could pose particular problems for the U.S., as would a hitherto-undeveloped capability to accurately find and target U.S. ships at sea with ballistic or cruise missiles. But the U.S. would face a target-rich environment on the Chinese mainland, and would also face the inhibitions associated with attacking a nuclear-armed nation.
- If the attack on Taiwan were to be mounted by China nearer to 2020, the more sophisticated its equipment, space and communications connections, and tactics are likely to be. This is a greater worry for the U.S.: the rise of the dreaded peer competitor taking advantage of those commercially-available technologies that the Soviet could not exploit in their period. In other words, the war might be fought on a more equal basis, with the implications of greater attrition on both sides that might be entailed.
- At the same time, the later the attack were to come, the more dependent China will be on oil from the Persian Gulf. With the U.S. control of the sealanes between China and the Gulf, China could be exposed to a crippling blockade of oil shipments.

Whatever the case, any war over Taiwan would lead to immense damage on both sides. The U.S. would hope the weight of damage would be on the Chinese side; e.g., China fearing damage to its economy, the loss of the U.S. market, the loss of foreign direct investment, etc., not to mention losses among its naval and air forces. (In all this discussion of the future of warfare, we do not speculate on the evolution of the “strength of will” of any participants. That would take us deeper into culture and politics than the otherwise pragmatic observations and speculations of warfare to which this discussion is confined.)

How groups and countries may adjust their defense programs to the changing nature of warfare between now and 2020

Introduction

Beyond the prospects for terrorist attacks, internal conflicts, and the few state-on-state confrontations, the question arises how the various groups and countries will organize, prepare, and equip themselves for killing and warfare through 2020. We do not believe the motivations for these preparations (and the sustainment of legacy forces) are simply a prelude to intended war—though the case of China against Taiwan gives pause. The classic (in the European sense) defensive and keeping-up-with-the Jones motivations for sustaining and developing military forces are not sufficient either for the developments taking place nor to explain group and country motivations. For the advanced world, the core group of globalizing countries, including the U.S., both the experience and passing of the Cold War confrontation and arms racing with the Soviet Union, as well as the competition for the loyalty of all the other countries, are no longer relevant—though there is a deep nostalgia for “a peer competitor” among some U.S. defense thinkers.

Organization for global and local terrorists

For the global terrorists and their local counterparts, the question through 2020 is the extent and solidarity of their organization. In 2004, they are inspired by Osama bin Laden and his particular vision of a dominant Islam, but they are dispersed, under assault, and practically localized. Training camps may be set up in remote locations, like Mindanao in the Philippines or in remote parts of the Sahara Desert. It appears to be difficult so far for them to set up in an anarchic country like Somalia, where they would need protection of warlords. Otherwise, they must rely on what they learned in Afghanistan and to pass it on to new recruits. As for their prospects:

- At one extreme of organization by 2020, they might hope to seize a whole country, whether Pakistan or Saudi Arabia or some other place, there to develop or buy the nuclear weapons by which to make their final assault on the West—or even deter it. This step would create a new rogue country, subject to isolation, sanctions, containment, and preemptive strikes.

- At the other extreme, they would continue to be dispersed and localized. This in turn means that their means of destruction would continue to be personal and car/truck bombs, and hijacked aircraft as bombs since it would be difficult to assemble nuclear weapons, manufacture chemical weapons, or assemble missiles in tents in the desert.
- At an intermediate level, they might try to set up new training camps in isolated, poor countries, as they did in Afghanistan. An example might be an independent Chechnya or a radicalized Iraq. Any such camps would be subject to strikes by the United States or others—strikes that might include Special Forces or air assault raids.

Internal conflicts as lack of organization

By their nature, internal conflicts, as typified by those in Africa South of the Sahara, do not constitute the organization and development of military forces. They represent the opposite—to put it crudely, “the loss of the monopoly of force.” Of course, the states that fail and lose their monopoly of force generally deserve to—having both frittered away any national wealth by corruption and having abused their populations. The issue for many of these countries is simply one of organizing internal security without abusing their populations. As a variation, for many countries the challenge is to extend the writ of government so that they can manage guerillas at the country’s periphery. Toward 2020, we may see:

- At one extreme, internal conflicts burning themselves out and responsible governments emerging, with the sufficient turnover of leadership that we call democracy.
- At the other extreme, interventions by advanced countries to restore order being necessary, and continuing their tutelage for a long time thereafter. Bosnia, Kosovo, Afghanistan, and Iraq may be in this category, and Ivory Coast may join them.

Sorting out economies and popular rule are beyond the scope of this paper, which is about warfare. In the absence of effective governance and economies that provide jobs for the population, warfare prevails.

Countries with organized militaries

The discussions below are not a comprehensive survey of global defense efforts since this report is about conflict and warfare—which countries may or may not resort to. Rather, it is selected types of defense establishments that are discussed in order to illuminate the problems countries may have in coping with the prospect of conflicts in the future.

The United States

For the United States in 2004, the continuing wars in Iraq and Afghanistan have made it difficult to envisage the evolution of the forces out to 2020, particularly in transformation. However, in its planning and programming system, the U.S. still strives to transform and modernize, informed by the Iraq and Afghanistan experiences.

The transition in U.S. forces from now to 2020 may be a struggle among:

- The legacy forces originally developed across the Cold War, with their high level of joint coordination, their operations in all dimensions (air, ground, sea, and space), their precision strike, their ability to deploy huge forces with logistic support, and the continued transformation of these forces, especially in their “net-centricity” and use of space. These forces can “strike at a distance,” through their expeditionary capabilities and their ability to deliver precision weapons from great heights or, in the case of tanks, from longer ranges than ever in history. In turn, stand-off is a way to minimize own casualties and precision is a way to control collateral damage, assuming the initial intelligence is good while hitting just key military targets.
- An emphasis on ground forces—both constabulary, i.e., peacekeeping or occupying forces and Special Forces (though Special Forces can operate in the four dimensions in a high-tech way as part of the larger force). These are thought to be more likely to be used in the Global War on Terrorism.
- A switch of the greater part of U.S. defense effort to homeland defense, including extensive missile defenses, “maritime domain” patrols (i.e., in the approaches to the United States), and extensive patrolling within the U.S. by ground forces (this is written just after the Beslan incident in North Ossetia: what if terrorists were to do the same in an American school?).

The U.S. is rich enough to sustain some elements of all of the above. It is the possibility of a world of almost continuous operations from now to 2020 that could prove to be a drain. In any case, the U.S. in 2004 probably spends half the world's defense budgets. With the possible exception of China making a huge defense effort, this is likely to continue. While no one talks of a "peace dividend" in the United States, it faces an aging population and a rapidly mounting budget deficit between now and 2020 that may well restrain defense expenditures. Other advanced countries face the same constraints.

Other advanced countries, globally connected

For the other advanced countries that continue to be connected to globalization, or are expanding their global connections (thought to be a condition for real economic growth), they are likely to continue to improve their war-fighting capabilities through 2020, but only modestly. This includes the European countries, especially the old NATO allies, Russia (and possibly Ukraine), Japan, South Korea, Australia, and Israel. They face the following range of decisions:

- They will want to emulate the U.S. in technological and expeditionary capabilities, to include space and connectivity, both because U.S. capabilities serve as the model to emulate and because they may anticipate forming coalitions with the U.S. (and with each other). They are also looking to become more expeditionary, able to move at least some forces to remote places. They struggle over whether to have a full range of capabilities or to specialize with niche capabilities. Many are converting to the professional, all-volunteer-type force pioneered by the British and then greatly expanded on by the United States.
- But, as both the Europeans and Australians have found, some of these countries expect to continue to be drawn into peacekeeping, peace enforcement, and constabulary duties, especially in their neighborhoods or their former colonies. Even Israel has found that is doing more police and raid-type fighting during Intifada II, to the detriment of its training to resist classic external assaults. These other advanced countries face aging and actually shrinking populations in most cases, with consequent strains on their social safety nets and questions of budget deficits (since they are, after all, on budgets), both of which restrain defense spending.

Note that in all these advanced country cases we are hardly talking about simple traditional defense of borders and territory, nor particularly of keeping some

traditional balance with their neighbors. Israel is a special case. (East Asia might turn out to be a different case, as discussed below.)

Other countries with traditional military organizations

A number of other countries around the world maintain classic military forces—tanks, fighter aircraft, a few surface combatant ships, a few diesel submarines—but tend not to have the more sophisticated connections to space or for joint operations. There are two models for these kinds of defense establishments:

- Countries that have been modernizing their forces, but only in platforms and not into space, surveillance, and networking. Egypt, Turkey, Saudi Arabia, some of the Southeast Asian nations, and even India might be included in this category. These kinds of countries have some resources to buy new equipment—in the case of Saudi Arabia, lavishly, though they may not have the personnel to man and maintain them. But all are coming under greater resource constraints as their populations grow and they grope for roles in the world economy. Through 2020, it is difficult to imagine any of these countries doing anything comparable to what the United States or even the Europeans do with their forces. In the meantime, it is likely that they will continue modest improvements to their legacy equipment.
- Countries that are still maintaining traditional militaries with basic platforms. Syria and Iran (and now in the past, Iraq) are examples. Several of these countries had relied on essentially free Soviet equipment in the past. As the equipment they have is not replaced with free Soviet goods they may be turning instead to WMD and the Scud and No Dong missiles with which to deliver them. North Korea is in the same category. One might also include Pakistan. These kinds of countries simply don't have enough hard currency to really modernize or transform their forces. North Korea is turning to nuclear weapons, declaring it is in part because they can't modernize their conventional forces. Iran seems to be turning to nuclear weapons. But these countries hardly train and do not use space. Through 2020, they are likely to continue to experiment with missiles and with nuclear and chemical warheads, while their legacy conventional equipment rusts away.
- India may be a special case. As its economy joins the global economy and it enjoys a higher growth rate in the past, it has also greater ambitions to modernize its forces. It has a home-grown nuclear weapons capabilities, and the missiles to deliver them are being developed and tested now. It

even aspires to a “nuclear triad” of bombers, missiles, and submarines. In its conventional capabilities, it is still dependent mostly on sales and coproduction agreements with Russia. At the same time, its ground forces have long been bogged down in the insurgencies in Kashmir and its northeast states—that is, they face the same dilemmas as the Europeans do in setting priorities between advanced forces and constabulary duties. And their budget in 2004 is still small (\$13 billion, however it may be stretched by local price advantages). How much this grows in the future depends on the continued growth of the Indian economy.

The stagnation of conventional forces around the world, as discussed above, is also reflected in the stagnation and decline of the global arms sales market, especially in major platforms and weapons systems. If the countries experienced windfalls of new funds coming to governments (not just through private businesses), they might make big new purchases. But it is also true that in past periods these purchases were made at the end of the ample production lines in the advanced countries, including the Soviet Union. Now these lines are boutique lines, with long lead times and much higher costs than 20 years ago. Hand-made equipment is not reliable, nor are the supplies of parts. One has to postulate extreme conditions for all this to turn around—the threat of terrorist attacks does not do it, but rather leads to increases in internal security forces in preference to those suitable for fighting state-on-state wars.

The sense of stagnation for traditional conventional forces, except for those fielded by the United States, reflects the decline of state-on-state warfare. It takes some imagination—the objective trends are against it—to turn that around in the next 16 years. We can see the range of possibilities for conventional forces out toward 2020 as follows:

- The continued stagnation and decline (i.e., without one-for-one replacement) of the traditional platforms and the overall size (manpower) of forces.
- The resort to nuclear weapons (and chemical weapons—a poor substitute) and the missiles to deliver them as a possibly cheaper way to have a deterring or threatening force (an interesting throwback to what the U.S. was thinking about in the 1950s with “massive retaliation”). An effect of this might be for threatened countries to resort in turn to missile defenses—which could well take the entire defense budgets of many countries—or to try to greatly increase their offensive forces

- The reemergence of state-on-state confrontations that threaten sovereignty or economic well-being that would change priorities in countries toward greater defense efforts, or cause them to seek closer ties with the United States or with their neighbors against a common threat. East Asia is the most likely region for this to occur.

The particular case of East Asia

State-on-state conflict may have a future in East Asia, and defense establishments in the countries are likely to be sustained and improved to hedge against this prospect. The discussion below leaves aside the immediate problem of North Korea. Much depends on China:

- Is it to be “peacefully rising China,” which integrates with the global economy, works for peaceful settlement of confrontations (e.g., on the Spratlys), waits patiently for the continued integration of Taiwan with the mainland economy while also evolving politically itself (e.g., no more overriding of Hong Kong democracy, allowing rotation of its own leadership in some manner rather than the usual Communist cooptation process), giving priority to the prosperity and social welfare of its own population, etc.?
- Is it to be a government and military establishment that finds its basic identity in its obsession with absorbing Taiwan, and tailors the development of its whole conventional and missile forces to that end, including defenses against the United States coming to the defense of Taiwan? Will they seek to resolve this before 2020 (as Jiang Zemin has said)?
- Or is it going to take advantage of the huge size of its economy to build a huge and sophisticated military force—including all the connections among its forces, including in space, and using these connections for the kind of precision strike capabilities the Americans have demonstrated—thus to threaten its neighbors into economic relations favorable to China?

These questions are further clouded by the issue of the survival, evolution, and/or replacement of the narrow elite regime that currently rules the country. Will the elite sustain and renew itself, or fall victim to decay, internal dissension, and corruption? Will it ossify and rigidify, as the Soviet leadership did, evolve more or less smoothly to a more pluralistic and open form, or be overthrown? These questions may well not be resolved before 2020—unless they decide to invade Taiwan, with its dire consequences (as one conference participant said, “they get one chance”), or experience a severe financial crisis.

The reactions of China's neighbors and countries that may be part of the regional economic system (Indonesia, Australia, and The Philippines) could also cover a range through 2020, and can be matrixed with the three crude alternatives for China (none of these may be straight paths, though "path dependencies" can be created by certain actions):

- China could set off both conventional and nuclear arms races with its closest neighbors, Japan and Korea (whether Korea is reunited or not). The new element to this traditional path would be missile defense, which might both work and be affordable by 2020, especially if the Korean and Japanese economies continue to grow, both in size and technologically.
- The countries yield to Chinese suzerainty because they need the market and they are cowed by Chinese military capabilities.
- An attempt is made to build a combination of economic and security institutions (with the kind of scheduled ministerial meetings and secretariats that characterize NATO) to resolve disputes, promote transparency about each other's military programs (extraordinarily difficult culturally for hide-bound militaries, especially Communist ones, not used to providing even their own leadership with information on their own forces), and in general adhere to the non-zero-sum relations that characterize economic free markets.

In the meantime, China is moving toward a more efficient, professional military force, contemplating the addition of the more sophisticated connections to the development of platforms. A big question through 2020 is whether they can develop their own technology, or will continue to be dependent on acquisitions from Russia—acquisitions that themselves may represent a past, though still useful, generation of technology.

The case of intercontinental nuclear weapons capabilities

The United States is almost certainly going to sustain its present operational nuclear forces—around 500 Minuteman III missiles and 14 Trident SSBNs nuclear-powered ballistic missile submarines) equipped with D-5 missiles—beyond 2020. They need not be replaced before then. They are to decline to the level of 2200 operational warheads by 2012, though in the absence of a new treaty in 2012, thereafter that figure could go in any direction. The U.S. will also retain long-range bombers, but is indifferent to whether they add to intercontinental

nuclear weapons capabilities (notwithstanding that keeping a “triad” is a sacred mantra for some in both the United States and Russia).

Russia is another case. Its intercontinental land-based missile forces are stable at the moment, their shelf-lives having been extended, but its economy does not as yet permit their wholesale replacement. Their submarine fleet has limited life as well, and they have only two replacement SSBNs on the ways at the moment, though they have no missile to put in their tubes as yet. They would face a crisis not long after 2010, but if their economy really continues to grow, especially if diversified private (not state) industry proliferates and provides the tax revenues not otherwise needed for aging population and already aged infrastructure, they might surge their nuclear weapons delivery system production again—if only to match the U.S. or to sustain at least an offsetting retaliatory capability.

As for the British and French long-range nuclear capabilities, they are now confined to a few SSBNs each. Asked what the future of the British capabilities would be, a British naval historian said, “It depends on what the French do.” India also aspires to an at-sea missile capability; it remains to be seen how well they can develop that over the next 16 years.

In the case of China, they have not announced any decision or plans to go beyond the minimal ICBM force numbers they now have. They have been developing a new ICBM and a new SSBN for some time, but they do not seem to have been deployed to operational units. China’s nuclear weapons plans remain a mystery.

Whatever efforts are made by Iran and North Korea, or any other poor country that decides to go nuclear, their efforts will remain pathetic compared at least to the those of the United States and probably the Russians. But we are left with a dilemma about them that will persist out through 2020. Do these countries want:

- A deterrent, to prevent attacks on them by the promise of retaliation?
- Do they think they have a usable war-fighting capability?
- Or are they simply after increased national prestige and place in the world, without serious thought about how the weapons might be used, or what the consequences of having them might be?

Rational examination of threats and security situations are supposed to guide the force and weapons systems decisions countries make, and we have said state-on-state wars are in steep decline, internal conflicts may also be, and that the global terror threat is the dominant one. But the advanced countries in the core of

globalization may also keep military capabilities alive—especially conventional ones—for prestige and historical reasons. Museums lie at the heart of advanced cultures.

The changing nature of warfare in strategic perspective, including some alternative horizontal scenarios

Today's global setting

The post-Cold War period was eventually but only briefly succeeded by a celebration of the achievement of globalization for much of the world—an ongoing process, like democracy, that had to be continually worked on, to be sure. But it represented, in a way, the end of the zero-sum balance of power maneuverings—which started in 19th century Europe and had its apotheosis in the Cold War—and the creation of a non-zero sum world. The Soviet Union had disappeared and Europe, the breeding place for world wars, was certainly at peace. State-on-state wars, especially in Europe, seemed a thing of the past. There was a substantial global decline in defense budgets, the size of forces, new equipment development, and global arms sales, particularly with the removal of the Soviet Union from the market.

There were internal conflicts in the countries that had been left behind, particularly in Africa South of the Sahara, but even these were declining in number, if not ferocity. There were still confrontational situations—in Korea, between China and Taiwan, between India and Pakistan. Just two years ago there were four rogue countries (Libya, Iraq, Iran, and North Korea; two others—Cuba and Syria were ineffectual, and Sudan was pathetic, whatever it was doing to its own people); the rogues threatened to attack their neighbors (maybe not Iran), support terrorism (North Korea had stopped), and build nuclear and chemical weapons and to build, co-develop, or buy the missiles to deliver them. Now the rogues are effectively down to two (Iran and North Korea), though Syria may be elevated to a higher status as rogue since it is still there.

The globalized world was on track to include 4 of the 6 billion people of the world (counting continued progress in joining globalization in India and China). Rising China had joined the WTO and Russia was negotiating membership. It was business that created globalization, not especially governments, but governments had created the conditions that made it possible in the first place—not least by maintaining general peace—and got together to regulate it—hence the WTO, NAFTA, EU, ASEAN, MERCOSUR, etc. It also had a large cultural component as TV, movies, the internet, etc., spread around the world. The huge U.S. economy—22 percent of the world economy for the 20 years up to the early 1990s, and now more like 30 percent (perhaps in part because of the adjustments to the severe overestimates of the fake Soviet economy and its value-subtracting

military-industrial complex)—was the driver of the world economy, as the largest exporter, the largest importer, and the greatest debtor. People moved around the world in enormous numbers, migrating especially to Europe and the United States, but also within countries, e.g., China. Globalization had long been led by the world crude oil market.

And then came 9/11, preceded by a few incidents and followed by even more devastating incidents (though none yet on the 9/11 scale). The advanced world realized it had a severe problem and the United States realized that what had become an abstract threat to its homeland from Soviet ICBMs and SLBMs became a real vulnerability to a surprise terror attack.

- The immediate problem was Osama bin Laden and his al Qaeda organization, operating from the Taliban's Afghanistan, and having its proximate origins in the Arab fighters the U.S. and Arab countries had encouraged to go to Afghanistan to fight the Soviets there.
- What the advanced world realized, though, was that the real source and the dire prospects of terror into the future arose out of the Islamic world, and especially the Arab world, which had been falling behind globalization. Some of the countries were receiving a lot of hard currency from oil sales, creating welfare elites and even welfare populations, but were being overwhelmed by population growth and corruption, thus disillusioning their youth. In the meantime, they were falling behind in diversifying their economies and in educating their people in skills useful in the global economy, generating very little culture themselves (no patents, little literature), and assailed by Western popular culture that the elites and mullahs thought threatened their way of life.

Thus, terror attacks and possible retaliation against the terrorists, wherever they may be found, seem to have become the dominant modes of conflict and warfare in the world today. The terrorists want to drive the West out of the Islamic world and probably have picked up the old Soviet propaganda, sometimes reinforced by the Chinese, that the West is declining and vulnerable to collapse. The terrorists are a tiny minority of the 1.4 billion Muslims in the world, but command the sympathies, in varying degrees, of a great many Muslims. A further fear is that the new proliferators, Iran and North Korea, might sell or give nuclear weapons to the terrorists, or that the terrorists themselves would somehow seize Pakistan or Pakistan's nuclear weapons upon that state's collapse.

Evolution of warfare toward 2020 in the global context

Given this starting point, what alternative paths of conflict and warfare can we project out toward 2020—in the overall global strategic context? And what might the major disruptions caused by conflict and warfare (rather than, say, financial crashes) be on each alternative path? The paths described below are as follows:

1. The world of the conflicts and warfare in the year 2020 not looking too different from that of 2004—with continuing globalization and terror disruptive, but not controlling,
2. A great struggle of the advanced world with the Islamic world, and a great struggle within the Islamic world itself, with terror and terrorist organizations at the tip of the iceberg;
3. A shift back to balances of power and security blocs, arising from economic blocs, toward 2020.

Path 1: More of the same

While those who look back each 10- or 20-year period would point out how bad the predictions they might have made were—how both evolutions and disruptions could not have been foreseen (including the collapse of the Soviet Union and disappearance of the Soviet bloc)—there is nonetheless much inertia in the world system. Time may pass quickly, but the forces and the nature of conflict may change only slowly—whatever technological miracles may spring up in the interim. It still takes time for technologies to reach the forces, for the forces to be trained on them, and for maintenance practices to ensure their readiness.

For instance, the proliferation of nuclear weapons and the missiles with which to deliver them has been quite slow since the fear of proliferation began with French and Chinese programs in the 1950s (China's first test was in 1964). In 2004, the international community is attempting to prevent North Korean and Iran from acquiring nuclear weapons, but it may well not be successful. But these are resource-constrained countries in defensive modes that are unlikely to have very big nuclear forces. However, they could trigger regional proliferation—by Japan and South Korea upon North Korea definitively emerging as a nuclear threat. In this scenario, the advanced world, including China, might reconcile themselves to North Korea and Iran having some nuclear weapons, because the cost of trying to forcefully disarm them would be seen as too daunting. They would remain vigilant about either country selling or giving nuclear weapons to terrorists. Saudi Arabia, taken over by radical Islamists, might attempt to buy nuclear weapons;

they already have long-range Chinese missiles on which they could be mounted, although replacement missiles would probably be necessary for them to acquire as the old ones age. A perhaps more important and related question between now and 2020 is whether the West and the Russians keep working to ensure the safekeeping of the vast stores of Russian fissile material—a process that has already dragged on for 12 years (since 1992).

With regard to conflict and warfare we can note, for instance, how the situation in North Korea drags on despite long-running predictions of the imminent collapse of its economy. The conflict between the Israelis and Palestinians and the attempts at Middle East peace drag on. The situation between China and Taiwan has been dragging on for many years as well. The chaos in Afghanistan, however it manifests itself in detail, has been evident since at least the mid-1970s and is likely to present itself in various ways through 2020.

The United States took its capabilities developed during the Cold War and applied them to great effect in Desert Storm in 1991. These same forces were then refined through better connectivity (enabling better joint coordination) and a switch to almost all precision-guided, air-dropped munitions by the time of Operation Iraqi Freedom in 2003, 12 years later—while the Iraqi forces had made no advances at all. But despite these technological and organizational advances, the continuing insurgencies in both Iraq and Afghanistan look to be more traditional ways of warfare—as mentioned earlier, reminiscent of Vietnam. That is, the U.S. continues to face many of the same problems it did in Vietnam, including difficulties in finding the hidden enemy, in hitting him without excessive and counterproductive collateral casualties and damage, and in massing numerically sufficient forces (not just firepower), U.S. and indigenous, rapidly in remote locations. While these insurgencies might be resolved by 2020, others of the same nature might take their place as other countries fail (failure usually means a collapse of governance—as happened in Somalia in 1990; 14 years later, Somalia is still the only country in the world without a government).

Given how defense is embedded in American politics, in this model of the future toward 2020 it is likely that U.S. defense budgets will remain high and much higher than any other country's in the world, that it will continue its technological development, and that it will use these forces for either major or minor strikes, as it did at least nine times between 1989 and 2003. Whether these kinds of forces can handle either short-term suppression of local security threats or long occupations is another matter, as the U.S. found out in Iraq. The continuing transformation of U.S. forces would also serve to dissuade other countries from

trying to match U.S. capabilities—and, as former Vice Chairman of the U.S. Joint Chiefs of Staff Admiral William Owens once said, if they are friendly and it helps to protect them as well, they are just as happy that the U.S. is staying out ahead. It also means that the Europeans will continue to struggle to maintain even minimum military capabilities, facing as they do aging populations, stagnant economies, and high unemployment.

As for terrorism, a model of “not much change” would entail the continued relentless pursuit of terrorists by the advanced countries and local governments throughout the Islamic world and hence the dispersion of these terrorists into local cells, their not managing to grab control of a state as they did in Afghanistan, but continuing sporadic incidents of terror bombings, possibly including another 9/11-type attack in the United States (or in another advanced country). A kind of containment-without elimination situation would persist. The continued dispersal of terrorists into local cells and their failure to seize a country for their own would also inhibit their ability to build nuclear weapons and means to deliver them, though isolated and small chemical or anthrax-type attacks would not be precluded. Would the terrorists wither away in this scenario? After all the Arab Afghan fighters would be nearly 60 years old in 2020. But we cannot say in this scenario that they would not obtain new recruits, especially as the scenario would also envisage very slow and reluctant reform by countries such as Saudi Arabia.

The decline of internal conflicts would continue in this scenario, assuming the continued minimal international interventions, but the possibilities of states failing remains because, even in the continuation of globalization, including the successful conclusion of agreements to remove commodity import restrictions that now exist, e.g., in the EU, the prospects for the have-not countries remain poor, especially with the scourge of HIV/AIDS.

Altogether, in this scenario, counter-terrorism and counter-insurgency would be the dominant responses by the advanced world to conflicts through 2020. This would mean emphases on Special Forces and peacekeeping and peace enforcement forces (which the Europeans are leaning toward). At the same time, military solutions are not thought to be the solutions to these conflicts. They merely keep them low-grade and from spreading. Rather, a full range of support by civil agencies, including non-governmental relief organizations, would be necessary—but not sufficient. It is making the countries safe and receptive to entrepreneurship in order to generate jobs for their people that would make the big difference.

Path 2: Terrorism becomes rampant and the Islamic world goes up in flames, progressively, toward 2020

At the more dire range of scenarios is the one in which the terrorists, still led or inspired by Osama bin Laden (who is unlikely to be still alive and free by 2020, but who could be succeeded), are making inroads in the Islamic world. The Islamic world itself would be characterized by failing states, revolutions, insurgencies, and internal terror. The terrorists could seize a state, as they had in Afghanistan. The most dire scenario would be that of the terrorists coming to control a combination of Saudi oil money and Pakistani nuclear weapons. If the radical Islamists representing terrorists were to take over Saudi Arabia or Iraq, the prospects would be for the disruption of crude oil production—except that they might install a government like that in Iran that supports terrorist activities, but does not want to cut off their source of cash. The range of terror attacks could spread more widely, into Europe and further into Africa, imperiling crude oil production in the latter area.

It is unlikely that al Qaeda and its associates would have simply swept across the entire Islamic world, from Morocco to Indonesia (and the southern Philippines), creating the new Caliphate, by 2020. Yet in fact the Islamic world has diversified and diverged greatly from country to country and from sect to sect since the Caliphate disintegrated more than 12 centuries ago. The countries have developed individually and have varying levels of competence in governance and economic prospects.

The responses to the seizure by terrorists of a specific country would likely be Western invasions, particularly by the United States. The U.S. would respond with its precision military capabilities, as it did in Iraq and Afghanistan in 2001 and 2003—and might have to again in those countries, given current trends. Depending on the severity of oil cut-offs and associated terrorist incidents in Europe, this time more nations might participate—depending on what state their militaries were in and assuming they were not bogged down elsewhere. It is unlikely that the West (and even China) would leave a terrorist ruling group in place long enough for them to start building nuclear weapons and the missiles with which to deliver them—unless that country were Pakistan, in which case India would intervene earlier. Perhaps the emergence of a truly radical Islamic regime in Pakistan would be the trigger for some kind of Indian-Pakistani nuclear exchange.

Alternatively, the advanced world might try to wall itself off from the Islamic world. This would be difficult, given the likely economic difficulties the Islamic

countries would encounter and the resultant flow of emigrants towards those nearby Western countries that might have jobs. Then there is the problem of the oil, with some advanced countries willing to make whatever compromises might be necessary to ensure supplies, while the United States might be tempted to seize oil fields for the same purposes.

Path 3: A shift back to balance of power and security blocs

The breaking apart of globalization into separate economic blocs between now and 2020 might be another possible path. The chances are that it would be a process that proceeds economically in the first place. The characteristics of such an evolution would be:

- China and its vast market dominates the East Asian economy scene, with the economic and trade interconnections among the countries in the region much stronger than those with the United States.
- The EU becomes an even more closed economic bloc, restricting entrance of Russia and the United States to its markets.
- Russia in turn, assuming it continues economic growth (this depends on much more diversified private enterprise if it is to be sustained for the long term), and given growing economic ties with the other CIS countries, effectively forms its own economic bloc with those former Soviet republics, as it aspires to now.
- The United States contents itself with the majority of its trade being within the Western Hemisphere.
- The Middle East— including the Maghreb, Levant, and the Persian Gulf — cannot become its own trading bloc since there is so little trade between them now and the prospects for more through 2020 seem just about non-existent. But about half the states in the area will continue to export oil to all blocs, as long as the oil holds out (which for several countries is well beyond 2020). The various blocs, except for the Russian bloc, continue to eye the oil resources of the region with greed and anxiety. The question is whether the United States, which had gradually picked up from the British the role of protector of at least the Gulf, would continue in that role. Even though most of the oil from the Gulf will go to East Asia in the future, it is hard to imagine that the U.S. would cede the protecting role to China or India, the other candidates. This would leave the U.S. in the role of stabilizer of the oil market.

- It is not clear in this scenario where India fits. A South Asia economic bloc is not sufficient, especially given the fears of Indian hegemony among other countries there. More importantly, India's continued growth depends on its trade with just about all the other economically prosperous blocs.
- The other region left out of blocs is Sub-Saharan Africa. It is difficult at this point to envisage a prosperous region forming its own bloc and not being dependent on the other blocs as markets. Whatever the humanitarian impulses that draw outsiders (reluctantly) to the region's frequent and continuing internal wars, there is the oil-rich region in and around the Gulf of Guinea that might attract competition, terrorists, and outside intervention.

The redivision of the globe into blocs would not necessarily result in conflict and warfare. War ruins economies and disrupts trade. Yet the development of an East Asian bloc might make a Chinese invasion of Taiwan seem more legitimate in the eyes of China's trading partners and embolden China. Contrarily, its threat or execution might also make the other countries fear being invaded themselves. The result would be some kind of arms race in the region. Japan and South Korea especially—assuming no reunification of Korea between now and 2020—might build nuclear weapons. Nothing would alarm China more than Japan rearming and going nuclear, unless it were being cut off from its access to Gulf oil supplies upon its aggression against Taiwan.

The EU closing itself off would also not be a prescription for conflict. At the same time, it might make it harder for a more unified EU defense effort to form coalitions with others outside Europe, especially with the United States. Nothing in these scenarios solves Europe's aging problem and the necessity for it to import labor from elsewhere, especially the Islamic countries that are nearby. The European countries also would not be positioned to expand defense budgets, though the incentive in this scenario is to finally break the identification of military establishments with the national state and to form a consolidated EU military—permitting a rationalization and efficiency in the use of defense resources that the U.S. has long urged them to do.

The exclusion of Russia from the EU and continued difficulties for Russia in selling goods (other than oil and gas) to Europe would cause Russia to turn more to its CIS relations—as it was already doing in 2004. Under this scenario, Russia's fears (and perhaps those of the other CIS countries) of China would increase, especially if there were an arms race in East Asia. The great unknown in all these scenarios is whether Russia can sustain the oil price-driven growth of the

first decade of the 21st century into the second decade. If it does, in this scenario, given its isolation and a desire to extend security to the weaker Central Asian countries, it might embark on a new military build-up—not to restore the huge, inefficient, ill-trained, ill-maintained, ill-led forces of Soviet times, but to concentrate on high-quality strike forces, emulating the American model, including the netting of forces aided by space assets. Assuming the kind of continuity of leadership from Soviet times that it displays in 2004, this impulse would be strong. But at the same time, Russia's population decline and the need for a state-supported social safety net would compete for the resources that it might otherwise think needed for defense. Another unknown in this scenario is in what direction Ukraine's connections develop. Ukraine's impulses "to join the West" may be even stronger than Russia's, but its evolution is even harder to predict toward 2020.

Under this bloc scenario, the United States could well find itself largely squeezed out of both the European and East Asian markets, assuming that the attraction of the Chinese market keeps countries together in East Asia, at least initially. It is difficult to imagine that the U.S. would find its own hemisphere to be a sufficient trading area, even though Canada and Mexico would remain by far its biggest trading partners. But then, the evolving concentration of military interest for the U.S. through 2020 has seemed to be across the Islamic world, in order to suppress terrorism, to protect Israel, and to ensure that the world oil market is not newly disrupted. The most feared disruption might come if East Asia were to burst into state-on-state warfare between now and 2020 and the U.S. gets involved in defense of one party or another.

Another possible source of disruption would be a move by any one bloc to dominate the Persian Gulf region and its oil resources. The U.S. would feel bound to resist this as a threat to its economy and security, at least if it took place before the development satisfactory substitutes for oil were to come to fruition.

Terror would hardly disappear on this path, but each bloc would probably be trying to wall itself off from the Islamic world. However, as Europe and East Asia, as well as the continental United States (but not Russia nor the Caspian-area countries, given also the long time it is taking to bring new production there on line), would be running out of oil through 2020, each bloc would be competing for access to the remaining reserves controlled by the Gulf countries. Could we imagine in this scenario that the advanced country blocs—East Asia, Europe, and the United States—would somehow clash on the sealanes? The impulse to cooperate would be stronger. More importantly, it may be U.S. interventions in

states that the terrorists try to take over in the Islamic world that would be the stabilizing factor.

The greatest implausibility of this third scenario arises because the role of the U.S. economy in the world system is so central that any big disruption in the United States could have major effects. In particular, the U.S. has a massive foreign debt, i.e., to these other blocs, the counterpart of its long series of large trade deficits. Any serious concern about the continued readiness and ability of the U.S. to service and pay off this debt could trigger a race for devaluations and shifts of assets on an unprecedented scale and this in turn could bring international trade and financial transactions to a virtual halt, plunging much of the world into economic depression.

One possible cause of a massive flight from American debt could come from a combination of ballooning governmental deficits combined with a significant downturn in productivity growth. The deficit problem is all too real, although not now at crisis proportions. Productivity growth is at quite high levels today and no downturn is anticipated, but the factors which determine it are not thoroughly understood and a sharp reduction is by no means ruled out. In combination with high deficits it is possible that such a movement might prompt serious concerns about U.S. creditworthiness, which could lead to an international financial panic. And that in turn could lead to a fragmentation of the world economic system, as well as general reduction in wealth, much as happened in the 1930s. These economic consequences are beyond this report on the changing nature of warfare, and the consequences for the outbreak of conflict as a result are unknown.

Conclusion

We have said that the most easily foreseen scenario for conflict and warfare, leaving aside defense build-ups and arms races, is the “more of the same” one. That is, we see globalization continuing. Though financial crashes and depressions could slow it down, it is at this point difficult to imagine catastrophic wars disrupting it. Rather, the most dominant threat is that of terror, both in the Islamic states themselves and in Europe, the United States, and Russia. In all scenarios, we can foresee a certain level of failing states and their internal conflicts. Insurgency almost seems to become a phenomenon of resistance to outside intervention, unlike during the Cold War where it generally was associated with local Communist revolutions.

In the 1990s, the U.S. worried most about the four rogues and their ability to develop nuclear weapons and to acquire (usually from North Korea) the missiles with which to deliver them, their support for terror, and their threats against weaker neighbors (or even each other, in the case of Iraq and Iran). Now the threat is the ubiquitous, though presently scattered, terrorists and their use of suicide bombers. The most dire immediate scenario would be their seizure of a state, with the almost inevitable strike soon after by the United States. That is the most imaginable “state-on-state” warfare between now and 2020, except for China-Taiwan and India and Pakistan stumbling into war. Most internal conflicts are out of the mainstream, and even massacres, as in Rwanda in 1994, do not have strategic consequences, if strategic consequences means disruption of the world system. It is interesting that one of the worst and persistent internal conflicts, in Colombia, has not come up in this discussion of alternative global scenarios, and yet it is the major source of cocaine, just as an otherwise pacified Afghanistan is the major source of heroin.

